



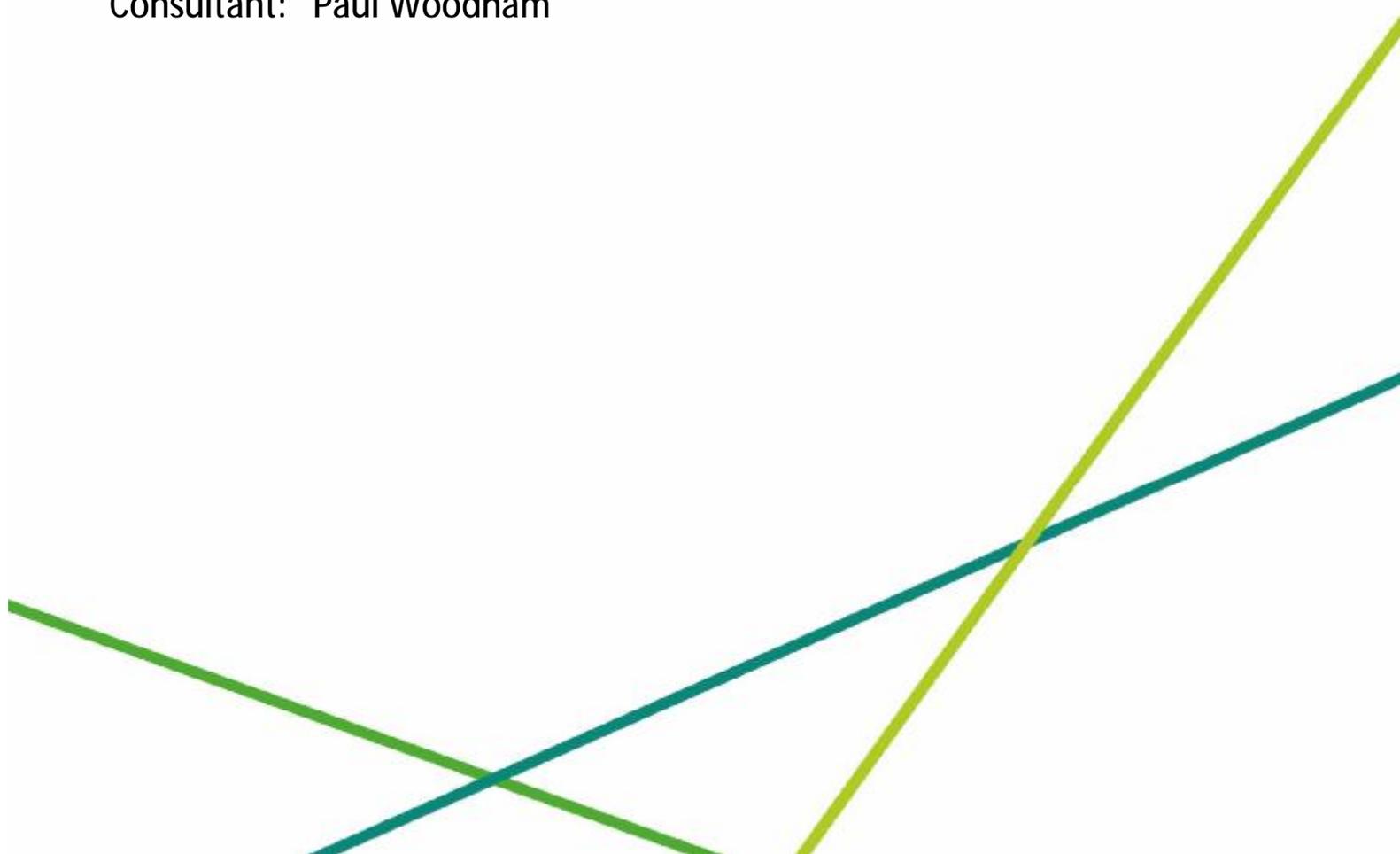
Making great sport happen



ASHBURNHAM GOLF CLUB

Advisory Report on the Golf Course incorporating the STRI Programme

Report Date: 9th May 2018
Consultant: Paul Woodham



Ashburnham Golf Club

Date of Visit: Wednesday 2nd May 2018.

Visit Objective: Review of course conditions and agronomic performance.

Present: Tim Priestland – Green Director, Damion Gee – Club Manager
Paul Hopkin – Head Greenkeeper, Paul Woodham – STRI Ltd

Weather: Dry following torrential overnight rain. Prevailing wet and cool conditions.

Headlines

- The course is in great condition and has wintered well despite difficult winter conditions and a lack of growth potential during a disappointingly cold spring. The course continues to benefit from the protection offered to green surrounds/approaches and use of fairway grass mats.
- The project to renovate bunkers is a significant improvement and work should be completed during winter 2018-2019 as half of the bunkers are already finished. A great effort by the team.
- Work done to condition the turf nursery in preparation for harvesting has been rewarded. This should continue and there is scope to establish turf which could be used for green surrounds in the future.
- The quality of the fescue dominant putting surfaces is arguably the best in Wales. Firmness remains in target despite heavy rain. Smoothness, trueness and green speed targets are achieved with ease.
- Organic matter levels have reduced towards target, albeit with the desire for further reduction; to be achieved through continued dressing and aeration. This will further strengthen the resilience of the greens and build upon the sustainable and authentically rich links characteristics.
- It is frustrating to learn of the troubleshooting issues with the new Air2G2 unit. Aeration opportunities have been limited due to breakdown although frequent use on weaker greens has still been beneficial.
- Weed establishment is rife following a wet winter. Daisies are widespread and in need of control. Semi and fringing rough is likely to be dense during the early season due to the wet start to the year.

Key Actions

- Continuation of greens maintenance strategy; involving minimal disturbance and pod overseeding fescue at time of renovation. Double up on overseeding to weaker greens.
- Increased use of Air2G2 aeration in conjunction with micro-pencil tining. Increasing quantities of autumn, winter and spring sand dressing.
- Repeat application of Praxys to control Pearlwort weed. Widespread of selective herbicide to tee, tee surrounds, fairways, semi rough and green surrounds.
- Continue to protect green surround/approach areas. Intensive overseeding to worn/weak areas.
- Continuation of bunker renovation. Prepare turf nursery for harvesting and reinstate harvested areas. Medium-long term work to grow tee/green surround quality turf.
- Plan tee surface levelling reconstruction at the 4th and 5th holes.
- 8th hole fairway drainage/reconstruction feasibility.

Objective Measurements: Single cut at 3.5mm (bench set height). No rolling.

Measurement	Average	Target Range
Soil Moisture (%)	40% (range 31-48)	10-25%
Hardness (Gravities)	92 Gravities (range 78-105)	90-130 g
Smoothness (mm/m)	26 mm/m	<25 mm/m
Trueness (mm/m)	9 mm/m	<10 mm/m
Green Speed	9ft 2in	8ft – 10ft 6in
Organic Matter 0-20 mm (%)	8.3% (-2.1)	4-6%
Organic Matter 20-40 mm (%)	5.8% (-1.0)	<4%
Soil pH	7.2	5.0-8.0
Phosphate (P ₂ O ₅)	51 mg/l	>10 (mg/l)
Potassium (K ₂ O)	36 mg/l	>30 mg/l

Key: In Target Marginal Variance Out of Target

Photo Observations and Comments



Figure 1: The standard of bunker renovation work is first class. There is a complete transformation in course presentation through the holes which have been completed.



Figure 2: The quality of revet turfs is good. It is pleasing to see the finished article with the grass growth burnt off to present a clean face.



Figure 3: There is plentiful supply of turf to harvest for the second phase and completion of the bunker renovation project. The area on the Clubhouse side of the road is less soily and thatchier, and therefore better for revet use.



Figure 4: The bunkers yet to be renovated are still presented as well as could be expected but we look forward to completing the project during the next winter. This is a big commitment and the greenkeepers are doing a great job.



Figure 5: Green surrounds continue to improve by offering more protection against winter traffic through sensitive areas. There are a few areas, such as 7th bunkers, where localised seeding is required.



Figure 6: Tee surface levels improvement is required at holes such as 4th and 5th. A full review of tee conditions will be carried out during the R&A visit later this year in preparation for 2019 Boys Home Internationals.

Photo Observations and Comments (continued)



Figure 7: Green profiles remain in good health with strong root development. Maximum root depth is seen at an impressive 200mm.



Figure 8: Sward density is good. Early season native bentgrass growth is a little leggy but will refine with some grooming. Smoothness and trueness is good.



Figure 9: Moss will soon largely subside as conditions dry. Localised colonies of pearlwort weed (grass like plant) remain stubborn and resilient against control using selective herbicide. Its impact is more visual than disruptive. Not a major issue but one we would like to continually battle.



Figure 10: The 8th and 15th green remain weaker although improving. We looked again at the option for dropping the contour through the left side of the 15th green to help shed run off water and avoid excess water trapping and running through the whole left side of the green.



Figure 11: The 8th fairway shows some improvement during average winter conditions but remains vulnerable to flooding.



Figure 12: The 8th fairway profile is thatchy and organic in the top 125mm.

Recommendations

Greens

- Continue the use of Air2G2 aeration (compressed air deep aeration) allowing for frequent scheduling during autumn, winter and early spring months. Work can continue during main season periods but be cautious or reduce the pressure over air injection during any aeration event in drier conditions.
- The greens benefit from minimal disturbance but routine aeration in the form of 8mm diameter pencil tining will always be beneficial creating aeration events through the upper 70mm of the profile.
- Avoid forms of solid tine aeration at times when annual meadow grass seeding is noted or likely to occur.
- Larger diameter solid tine aeration can be scheduled at time of main season renovation taking the opportunity to repeat the pod or pot seeding which resulted in a good strike of germination last August/September. This work can be doubled up in weak areas of the weaker greens such as central section of the 8th green and mid-left/front left section of the 15th green.
- A further application of sand dressing is expected to be applied in the coming weeks and should then tail off as the main season sward starts to close up and density increases. Be progressive with volume of sand dressing especially through the renovation, late summer through to autumn, and winter and into spring. This is a period when the vast majority of dressing can be applied. The Club should target in excess of 100-120 tonnes of sand per annum increasing the volume on weaker sections of green.
- Early season differential growth can become refined through occasional grooming using the hand mowers. The objective is to fine out any lateral procumbent growth of coarse native bentgrasses. Keep this work to a minimum so as not to overstress the fescue component to the sward.
- Plan out what work is required to the left side of the 15th green to promote shedding of water away from the putting surface as discussed in previous reports. This work is fairly simple and involves turf cutting (take the opportunity to remove any excess organic matter from the turfs) before lowering the contours through a small section of green to create the runoff which is required.
- Praxys (Florasulam, Fluroxypyr, Clopyralid) was applied last year to treat pearlwort weed. The weed is stubborn and commonly reseeds from a bank of seeds in the profile. Holster XL (Fluroxypyr, 2 4-D, Dicamba) could be an alternative (both to be applied at maximum dose rate) if used during a period of strong active growth and increase nitrogen to promote recover and stronger competition in the grass sward.

Green Surrounds and Approaches

- Continue with extension of sand dressing into green approach areas, again targeting much of the work through autumn, winter into spring periods.
- Continue to protect any weak and vulnerable areas through green surrounds and around trafficked perimeters of bunkers. Overseeding work needs to be intensive through any weak areas which are prone to being burnt off during dry summer periods or have a higher ingress of poa annua which is providing sparse and less resilient cover. Pod seeding will be adequate so long as some nutrition/seaweed is available to promote establishment of the seedlings. This is work which is best applied during late summer and then protected during winter months.

Tees

- It will be another busy winter work for the greenkeeping team with the final phase of bunker reconstruction. Nevertheless, there will be a requirement for tees levelling at the 4th & 5th holes. A full review of tees will be carried out at the time of The R&A inspection.

- Consider lifting the turf from the tees to be renovated for use through the reinstatement of bunker surrounds following re-revetting. The relevelled tees would be finished off nicely with a quality fescue or fescue/dwarf ryegrass blend grown on sandy textured soil.

Bunkers

- Repeat the refinement work on the turf nursery concentrating on improving conditions through the Clubhouse side of the road crossing. This is where the sward texture is better with the higher density of thatch which is ideal for revetting work.
- Reinstatement the areas already harvested, spreading reclaimed dune sand lightly cultivated into the soil before seeding to establish a new grass cover.
- Take the opportunity to merge the final turfing around the bunkers in areas where greenside bunkers are close together i.e. front right of the 4th.
- Medium to longer term plan for the turf nursery could be to install irrigation to provide water coverage to an area which could be cultivated and prepared to establish a tee/green surrounds grade turf for future projects.

Fairways

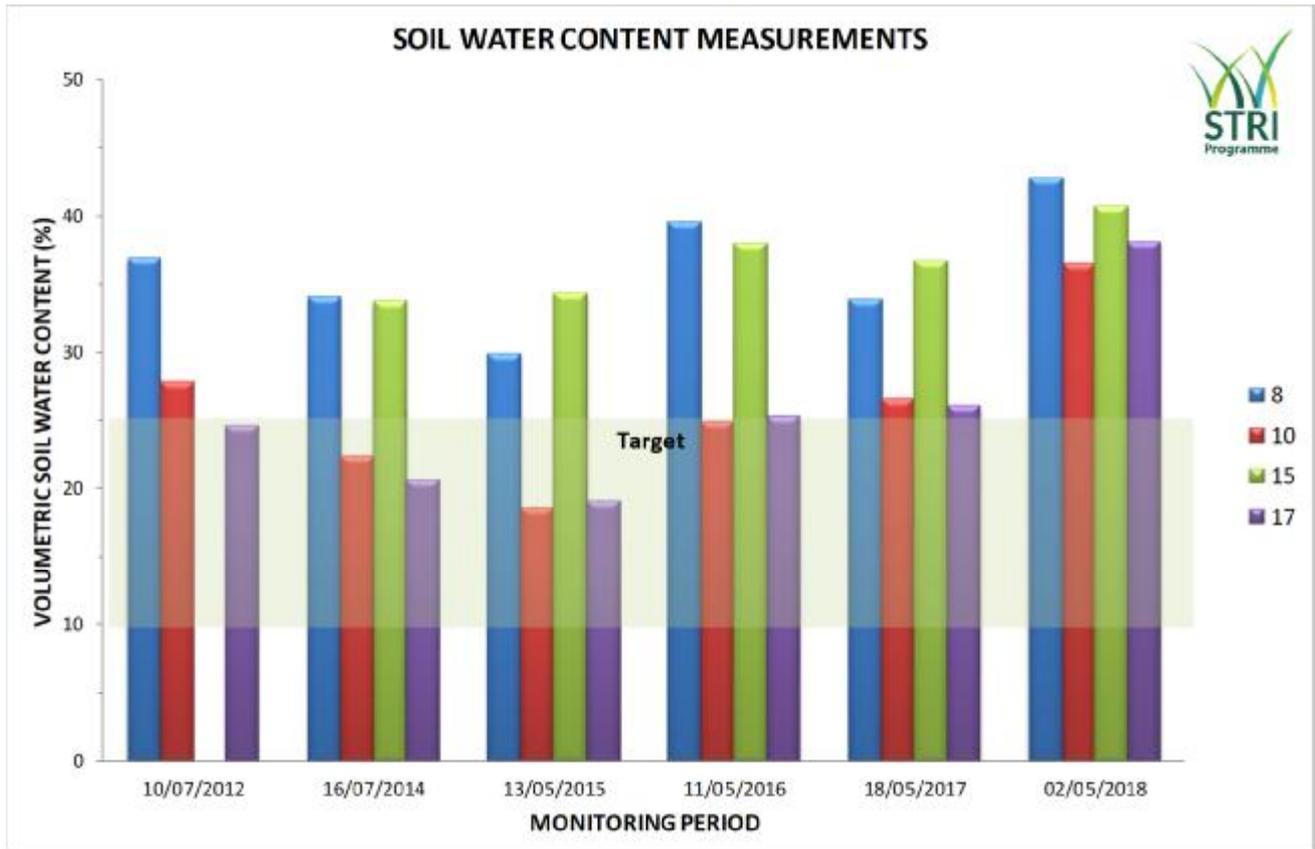
- Schedule application of selective herbicide to target control of daisies. A repeat treatment may well be required. This operation should be built into an annual maintenance programme as there is likely to be a bank of weed seeds in the soil. The population of daisies through South Wales Golf Courses always seems to be prolific and difficult to target.
- Repeat deep solid tining of the fairways during late summer/early autumn focusing on any weak and wet areas or trafficked areas of compaction.
- The open mix fertiliser treatment can continue but possibly reduce as it is expected to be a surge in early season growth following a wet winter period. Monitor conditions and apply nutrition according to growth response and any requirement to strengthen swards and presentation.
- The 8th fairway continues to be problematic in terms of drainage. Visits have looked at this issue on several occasions and the Club should consider progressing to the next stage to investigate more intensively with a feasibility work and report identifying exactly what work would be involved to raise the surface levels or, if applicable, improve the top soil profile which would allow for better drainage. A feasibility report would look at the options and the volumes required for reclaiming the dune sand which could be blended as a design mix to create the finished soil texture, structure and levels.

Signed

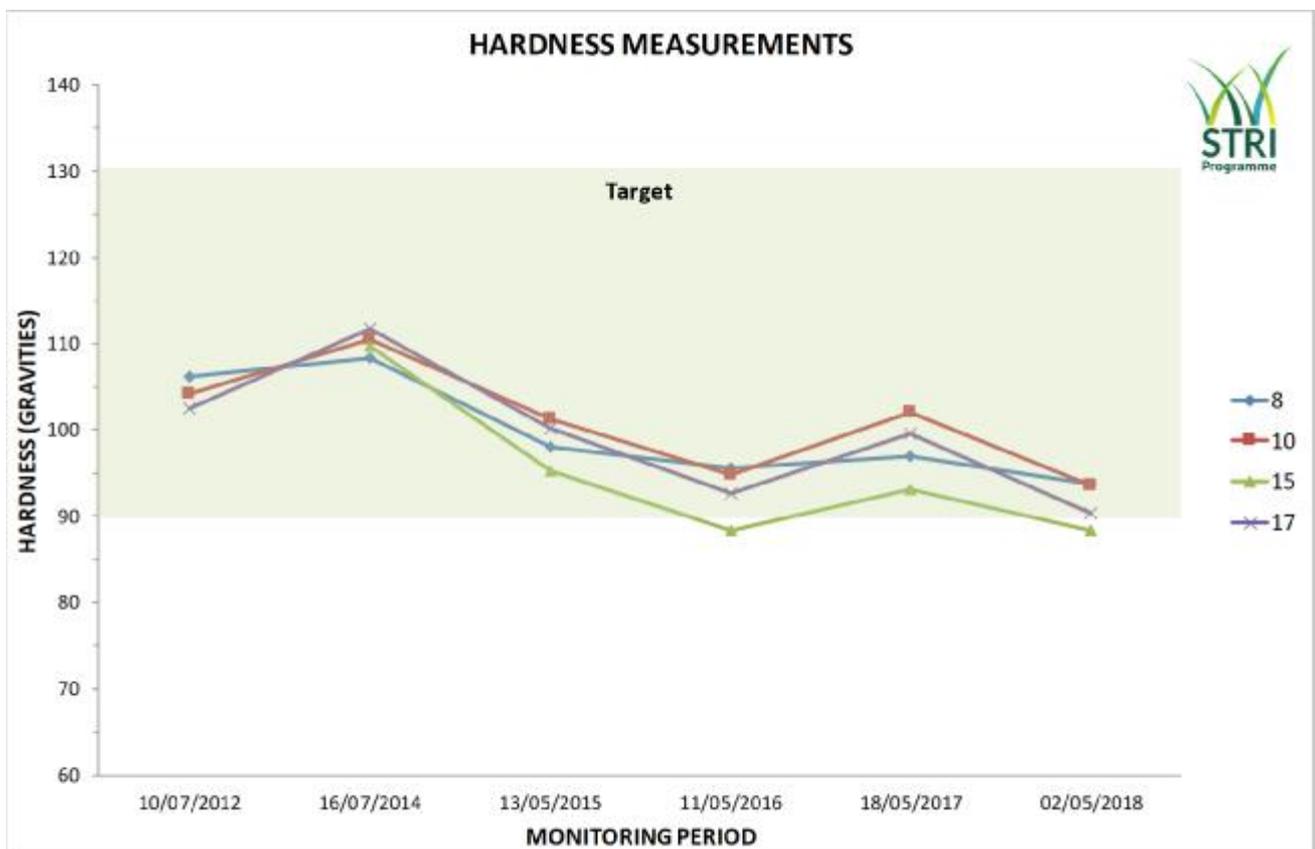
A handwritten signature in black ink, appearing to read 'Paul Woodham', with a long horizontal flourish extending to the right.

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Objective Data

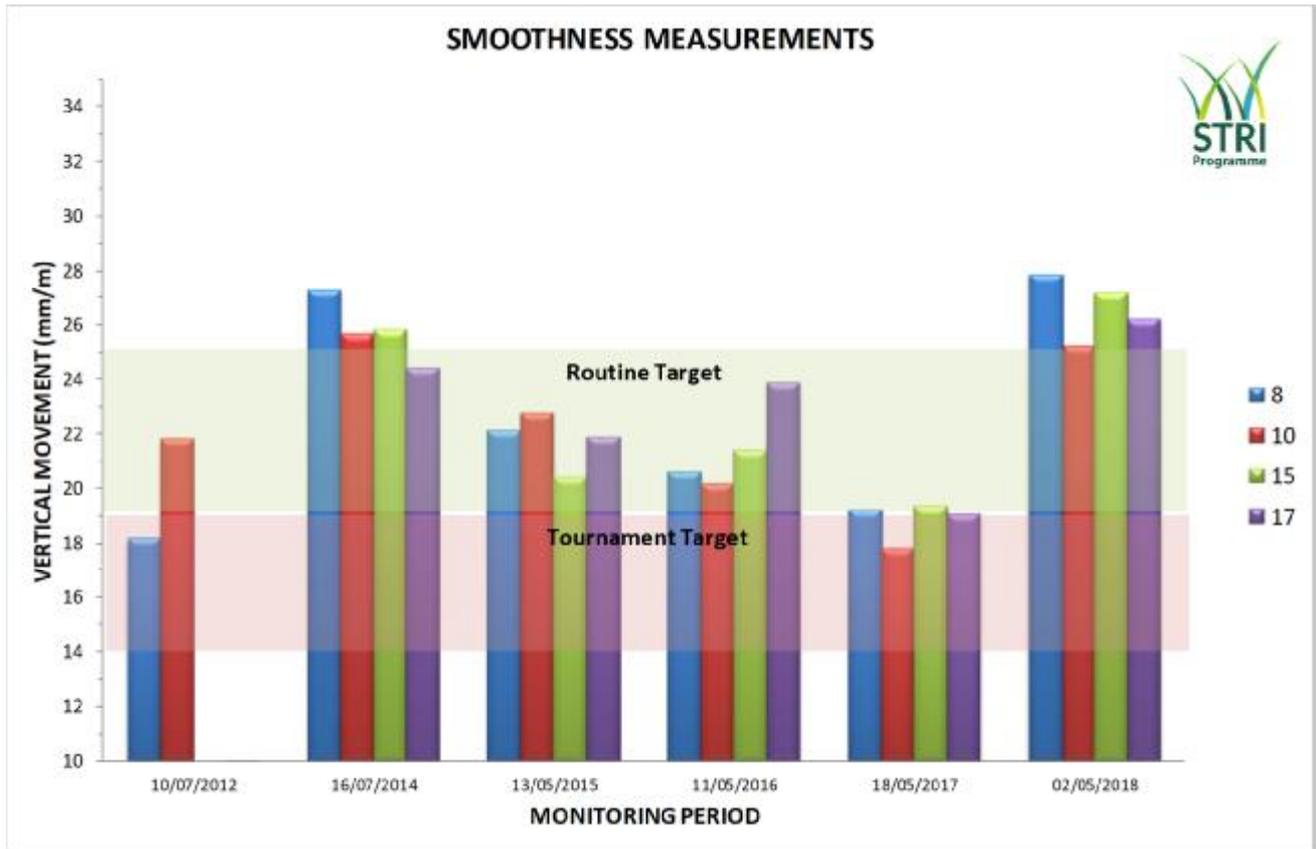


Soil moisture content was well above target, as expected following over an inch of overnight and morning rainfall. The gap between the weaker and stronger greens was narrower although we could expect the 10th and 17th greens to dry down quicker. It is pleasing to see that measures to help manage soil moisture management have been continued with the early application of Revolution wetting agent.

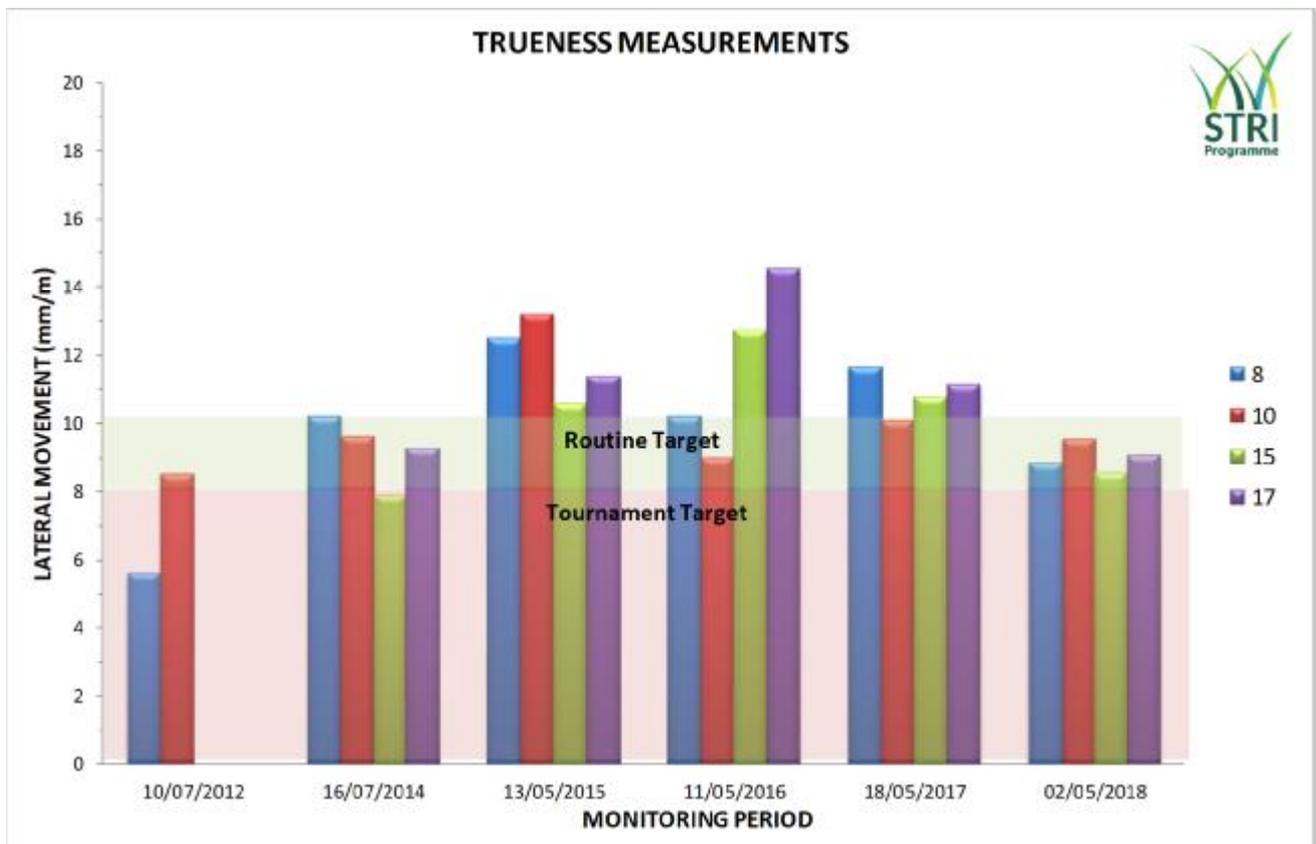


Firmness continues to remain in target. There is plenty of scope to firm the greens up.

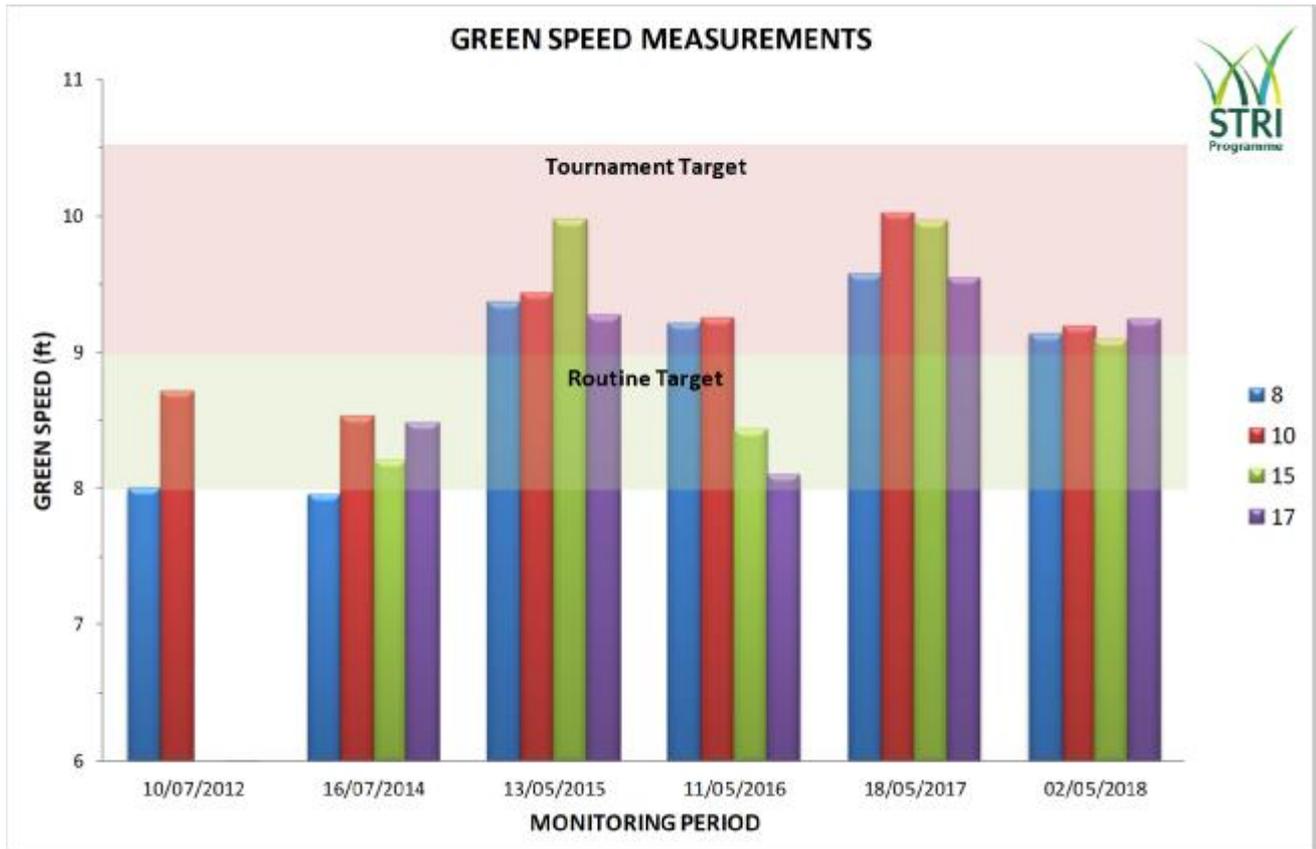
Objective Data (continued)



Smoothness was on the cusp of routine target, and trueness within target. These measurements are recorded at a time when a lack of growth potential and overnight rain conspired to restrict greens set up. It goes to show that we don't have to work these greens hard to achieve targets.

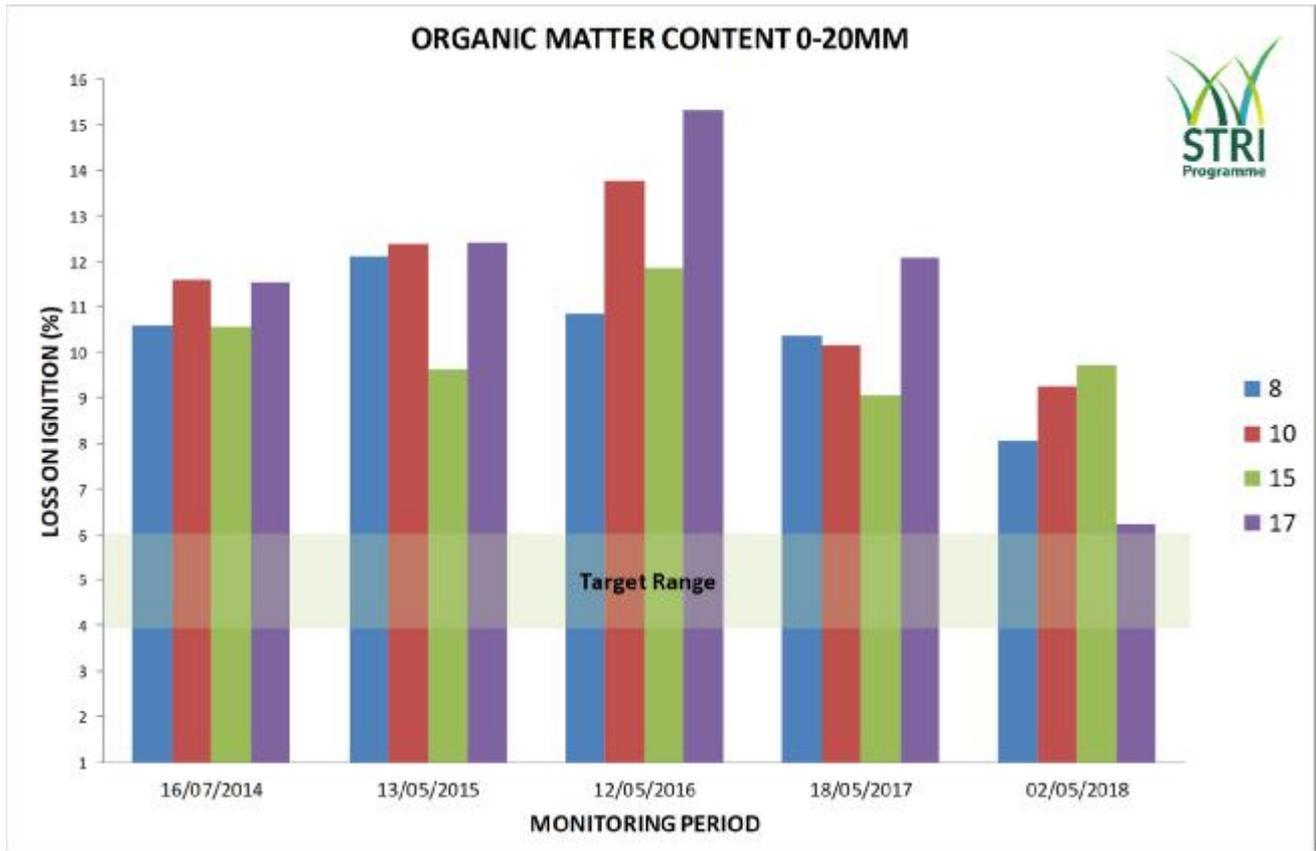


Objective Data (continued)

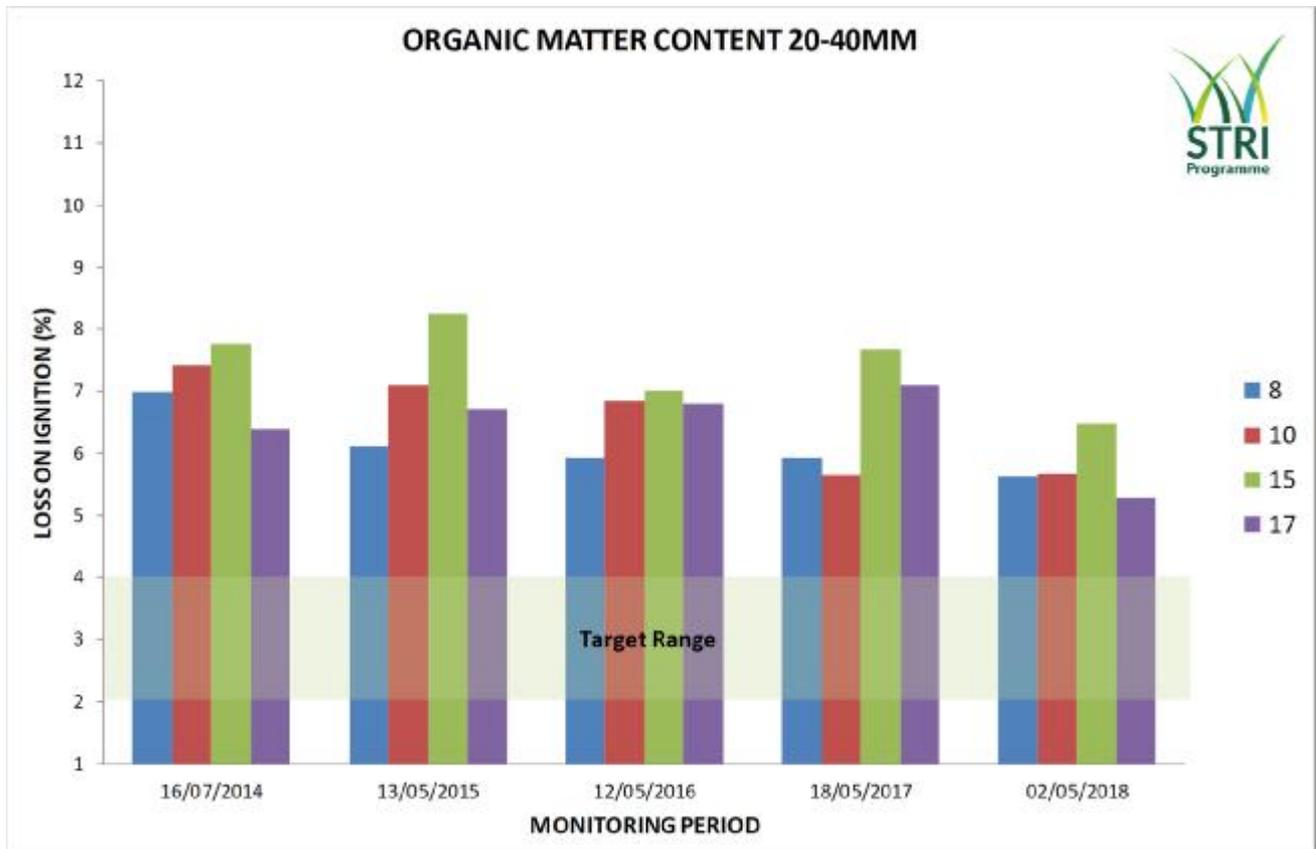


Green speed was superbly consistent.

Soils Laboratory Data

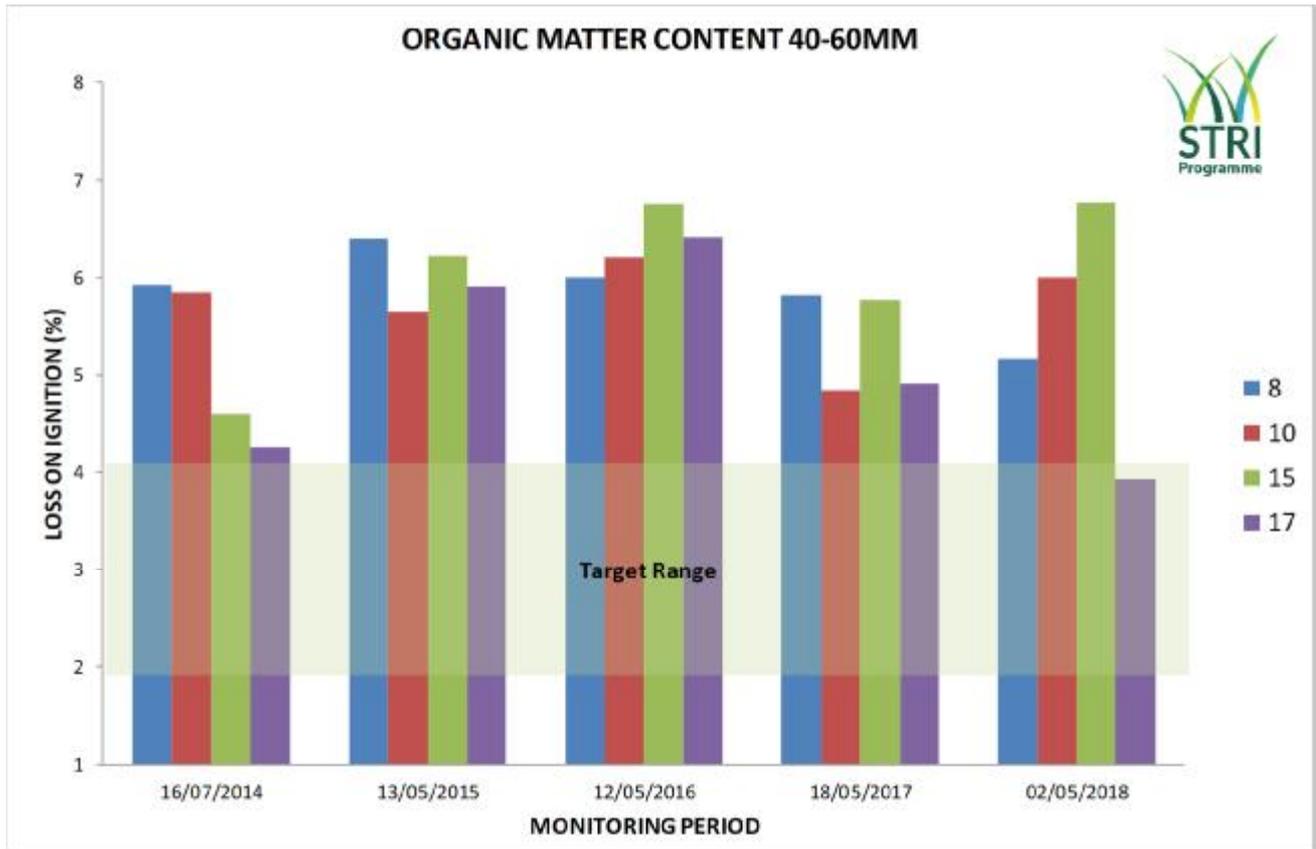


Top 20mm organic matter levels are now at the lowest recorded since the sample collection commenced in 2014.

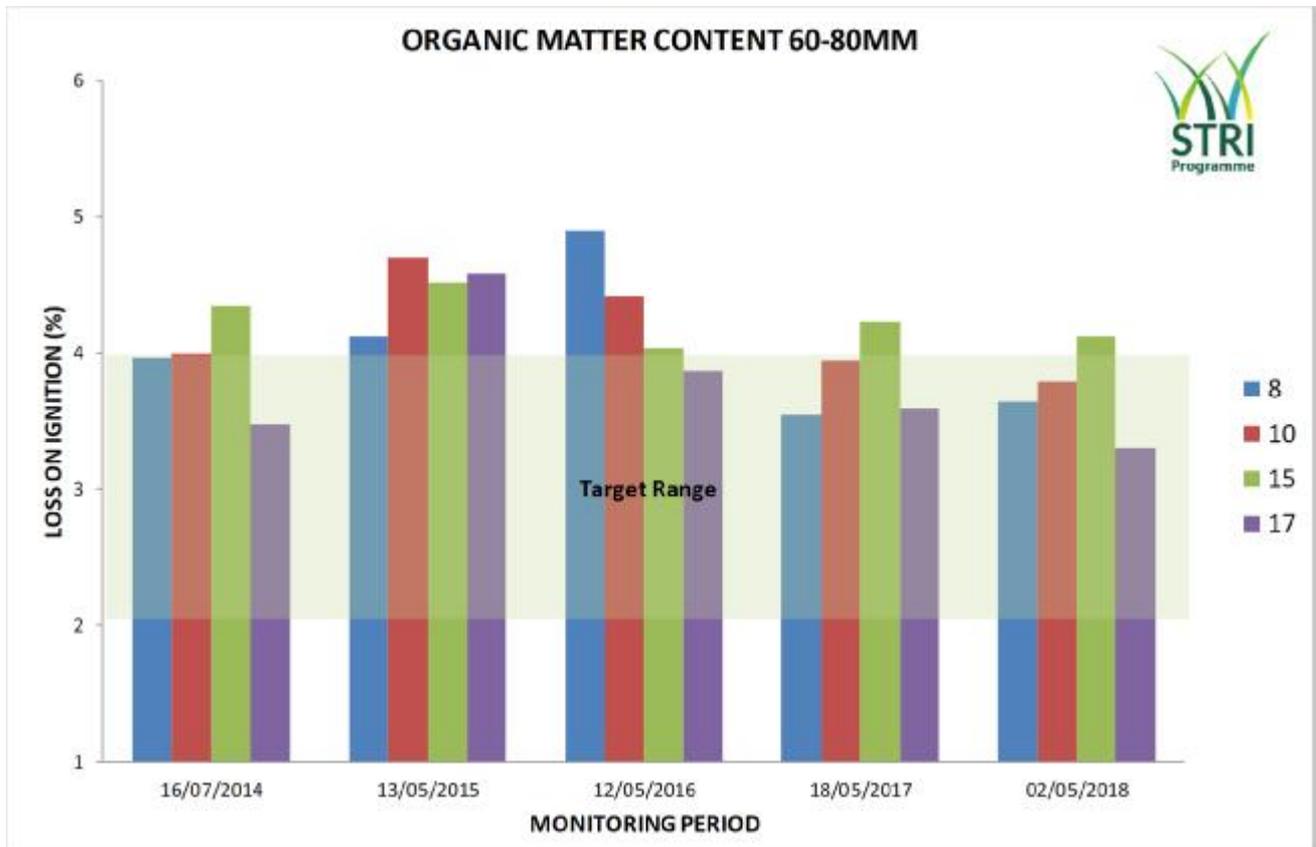


OM levels remain above target but there is no requirement for hollow coring or other forms of physical removal. Just continue with aeration and sand dressing to dilute OM and improve the soil profile texture through the top 70mm.

Soils Laboratory Data (continued)



OM values will always be more variable at depths below 40mm so net losses and gains may well be seen during sampling. Although above target, the strategy is to largely ignore any excess accumulation below 40mm depth in this links environment.



ORGANIC MATTER CONTENT

CLIENT: ASHBURNHAM GC
ADDRESS: CLIFF TERRACE,
BURRY PORT,
CARMARTHENSHIRE, SA16 0HN

DATE RECEIVED: 03/04/18
DATE REPORTED: 26/04/18
RESULTS TO: PW

TEST RESULTS AUTHORISED BY:
Michael Baines, Laboratory Manager

CONDITION OF SAMPLE UPON ARRIVAL: MOIST

SAMPLE NO	DESCRIPTION	LOSS ON IGNITION (%) [*]
A16709/1	8 0-20 mm	8.07
	20-40 mm	5.63
	40-60 mm	5.17
	60-80 mm	3.64
A16709/2	10 0-20 mm	9.27
	20-40 mm	5.68
	40-60 mm	6.01
	60-80 mm	3.79
A16709/3	15 0-20 mm	9.72
	20-40 mm	6.48
	40-60 mm	6.78
	60-80 mm	4.11
A16709/4	17 0-20 mm	6.23
	20-40 mm	5.28
	40-60 mm	3.93
	60-80 mm	3.30

* ASTM F1647-11 Standard Test Methods for Organic Matter Content of Athletic Field Rootzone Mixes (Method A)



Testing Certificate 2159 - 01

THE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

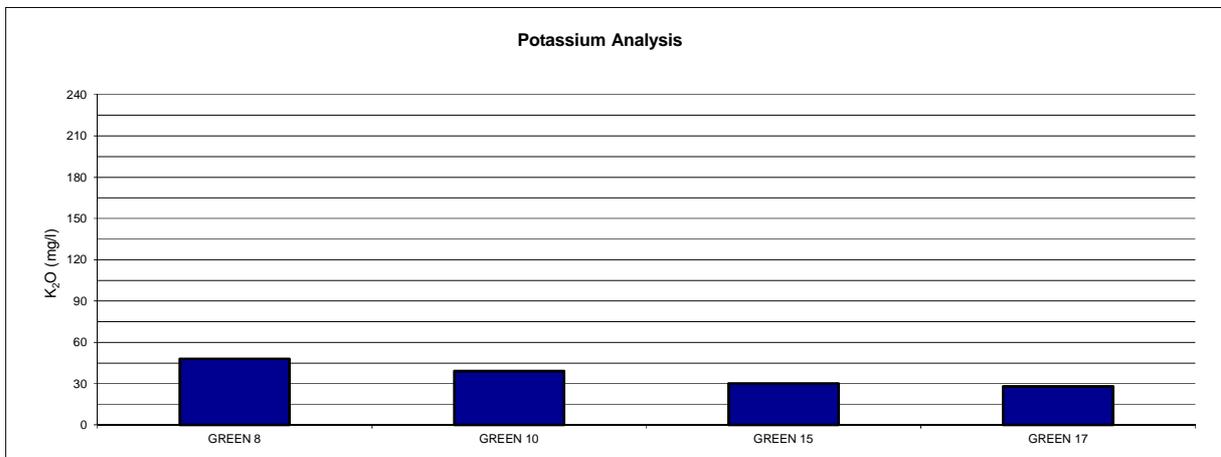
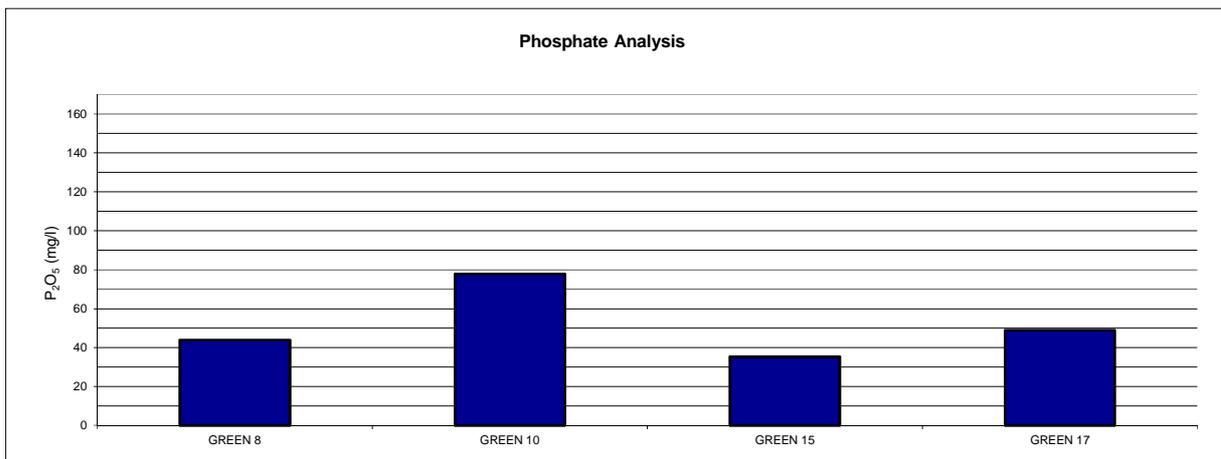
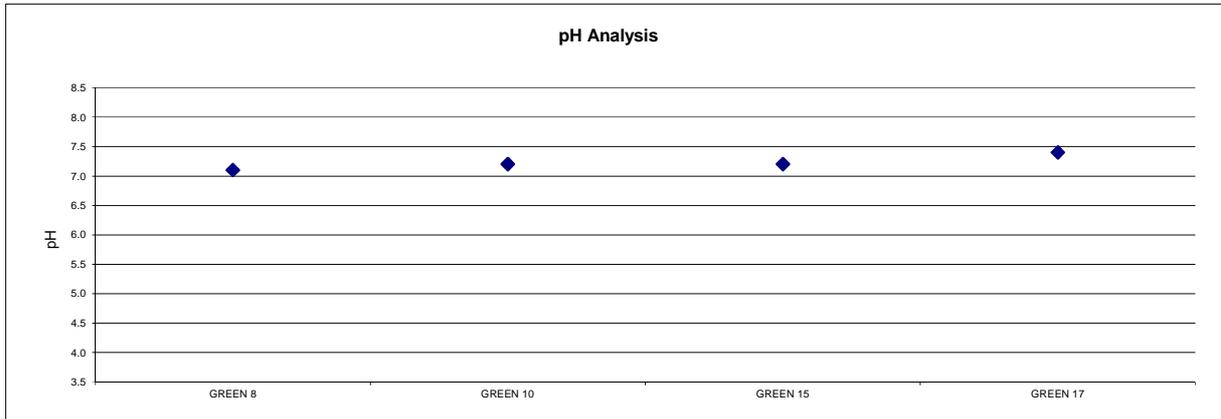
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SOIL CHEMICAL ANALYSIS

ASHBURNHAM GC

Date: 03/04/18



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